Fig. 1 (a) \mathbf{X} 1 1b' X -1a J Sleep Stage Signal Deviation Signal Automatic Determination Strength Value Amplifier and Gain Device Calculator Calculator Shaper Controller

Fig. 1 (b)

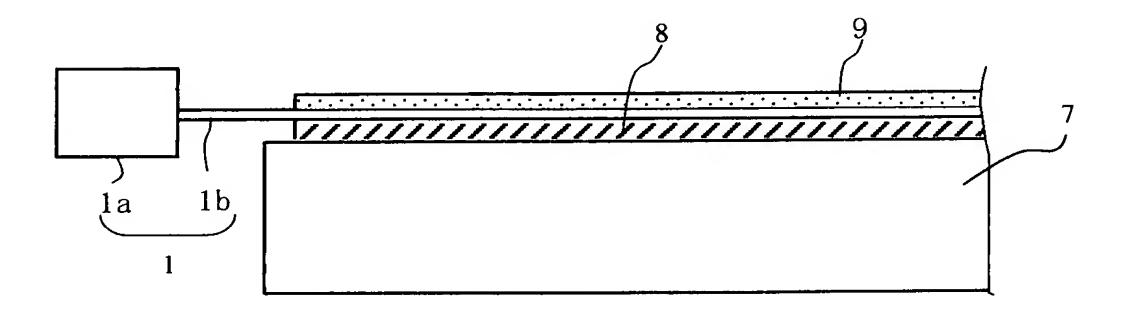


Fig. 2

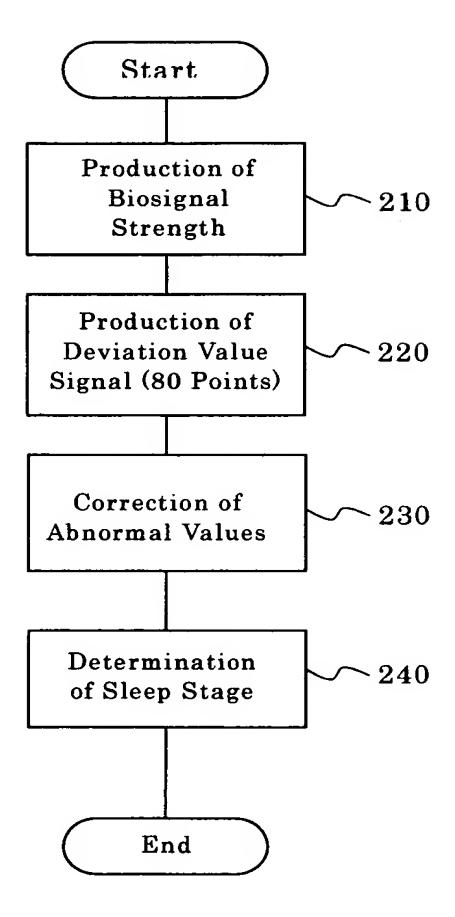


Fig. 3

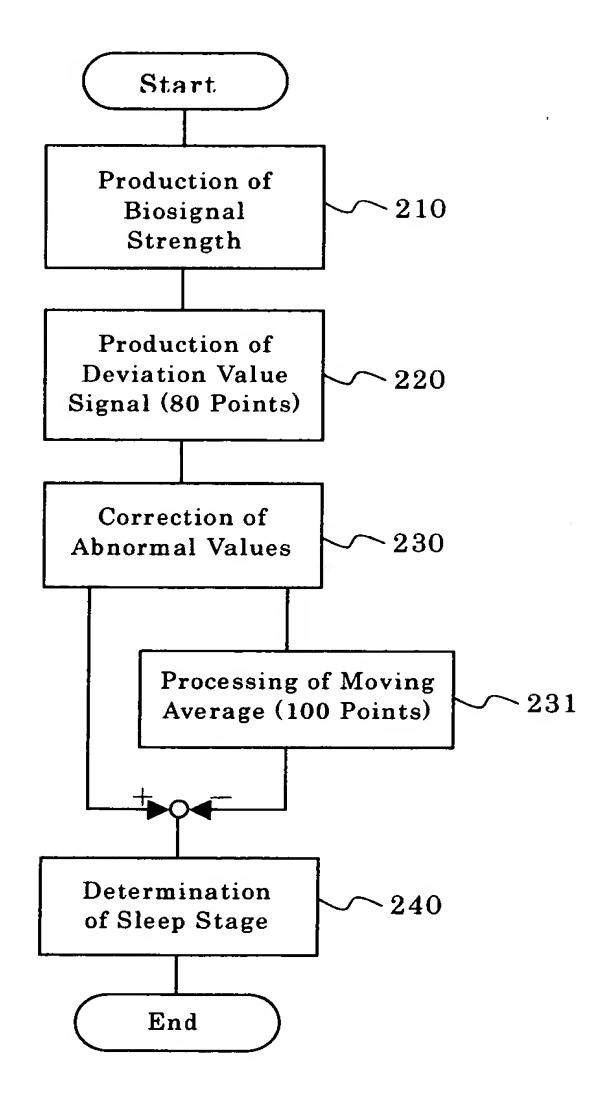


Fig. 4

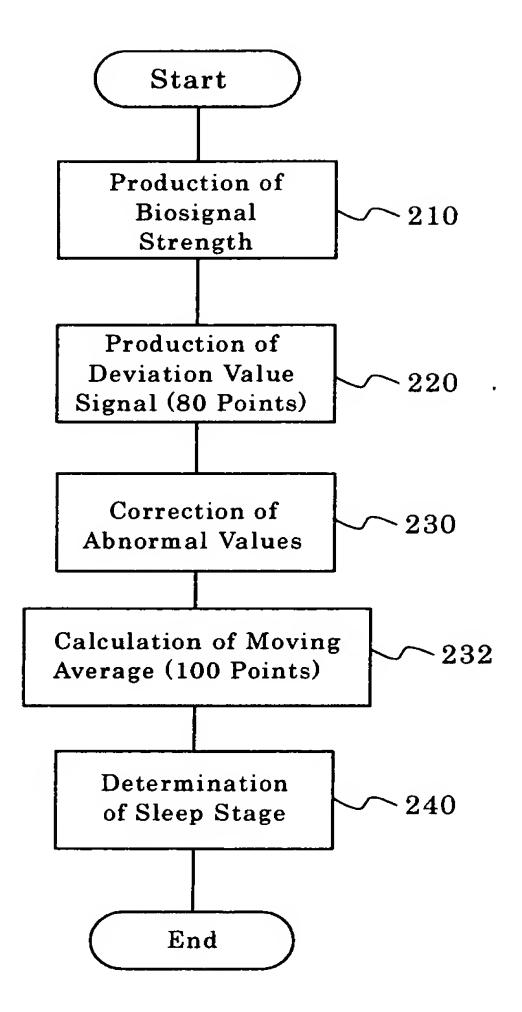


Fig. 5

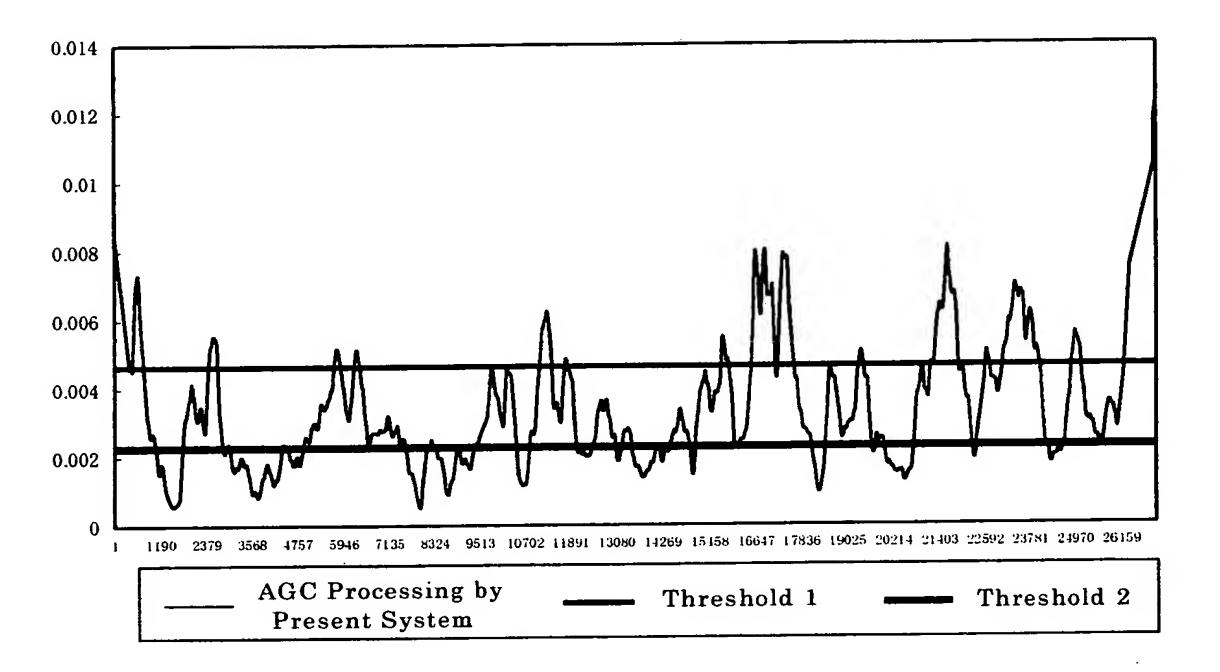
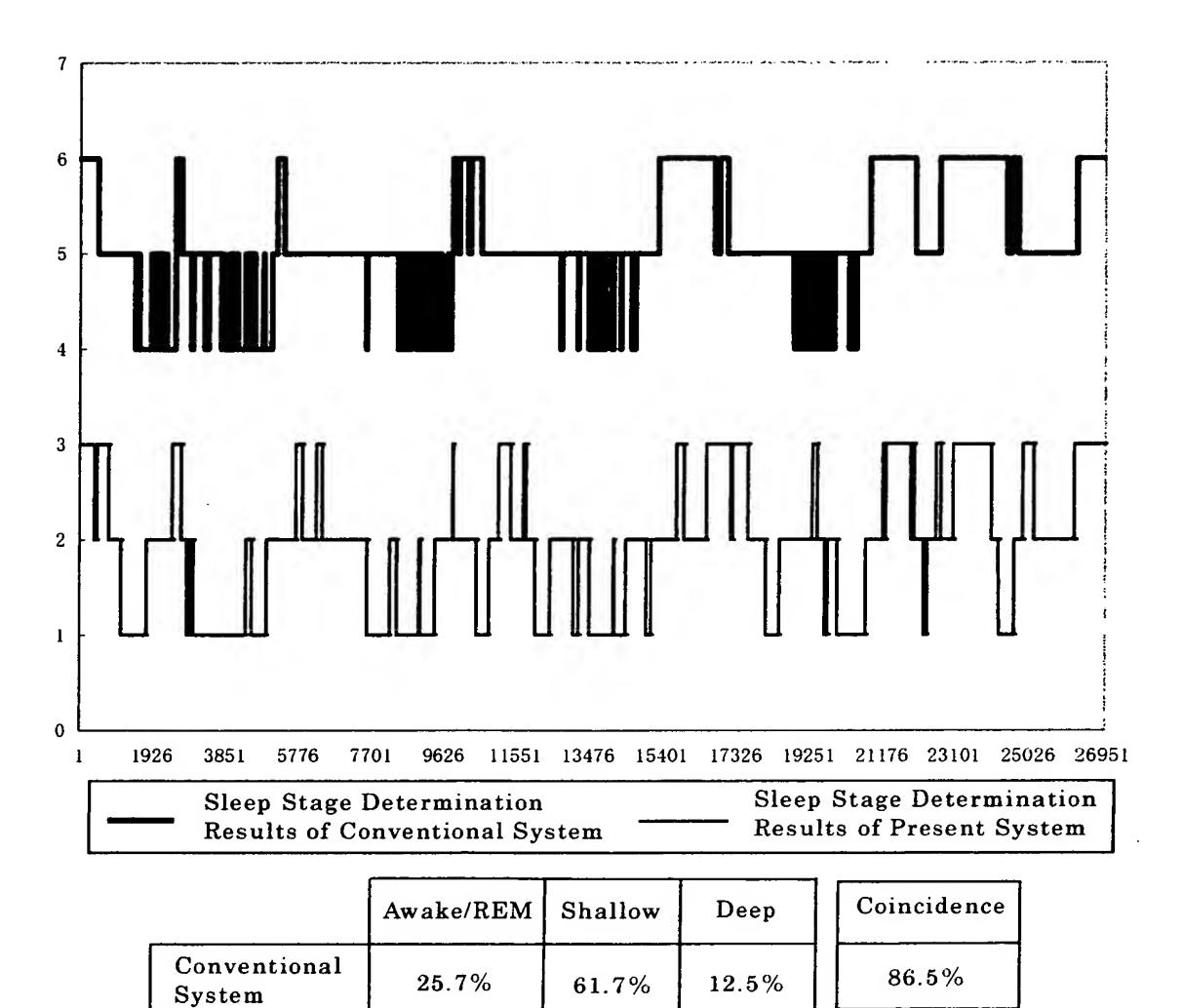


Fig. 6



49.3%

 $\mathbf{24.6}\%$

26.1%

Present

System